Application No.: 10/010,573

CLAIM AMENDMENTS:

1. (original) A method for reducing a thickness of a compressible substrate bearing an image, the substrate having an initial thickness, comprising:

applying a compressive force to the substrate to compress the substrate to a thickness less than the initial thickness, the compressive force selected to preclude the substrate returning to the initial thickness after removal of the compressive force therefrom; and

concurrently applying heat to the substrate.

2. (original) The method of claim 1, wherein the compressive force is adjustable so as to achieve a desired thickness for the substrate after compression.

3. (original) The method of claim 1, wherein the compressive force is applied by passing the substrate through a roller nip formed between two adjacent rollers, and where the concurrent application of heat is accomplished by heating at least one of the rollers.

4. (original) The method of claim 4, wherein the pressure applied to the substrate as it passes through the nip is in the range of 0 to 400 pounds per linear inch.

5. (original) The method of claim 1, wherein the recited steps are repeatedly applied to a plurality of substrate sheets which are further processed to form a bound document consisting essentially of reduced thickness pages.

6. (original) The method of claim 1, wherein the compressive force is applied by passing the substrate through a roller nip formed between two adjacent rollers, and where the compressive force is adjustable by adjusting a nip pressure so as to produce a compressed substrate having a thickness in the range of 100% to 50% that of the initial thickness.

7. (original) A method for reducing a thickness of a substrate bearing an image, comprising:

forming an image on a substrate, the substrate transformable from an imaging state having a first thickness to a compressed state having a second thickness thinner than the first thickness; and

concurrently compressing and heating the imaged substrate to transform the substrate to the compressed state without substantially distorting the image.

8. (original) The method of claim 7, wherein the image is produced on the substrate using a toner deposition process, and wherein the step of concurrently compressing and heating the imaged substrate causes the toner image to smoothen and produces an improved glossy image quality.

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9. (original) The method of claim 8, further including the step of applying a release agent to a surface that contacts the image during the compressing and heating step so as to prevent the image from transferring to the surface.

10. (currently amended) An apparatus for producing a compressed substrate having an image thereon, comprising:

an imaging station for rendering an image onto the substrate when said substrate is in an uncompressed state; and

a compressing station, operatively associated with the imaging station, to receive an uncompressed substrate with an image thereon and to apply a sufficient compressive force to the imaged substrate to permanently reduce a thickness of the substrate and thereby produce a compressed substrate with an image thereon.

11. (original) The apparatus of claim 10, wherein the compressing station includes at least two rollers forming a nip therebetween, and where the uncompressed substrate may be fed into the nip as the rollers are rotated so as to concurrently feed the substrate therethrough while compressing the substrate.

12. (original) The apparatus of claim 11, wherein the compressive force applied to the substrate as it passes through the nip is in the range of 0 to 400 pounds per linear inch.

13. (original) The apparatus of claim 11, wherein at least one of said rollers includes a resilient outer surface so as to compensate for any unevenness in the rollers.

14. (original) The apparatus of claim 11, wherein at least one roll is formed from aluminum and an outer surface thereof is anodized.

15. (original) The apparatus of claim 14, wherein the at least one roll further includes a urethane coating applied over the outer surface thereof.

16. (original) The apparatus of claim 11, further comprising at least one stripper finger to assist with the removal of the substrate from the roller surface after the substrate passes through the nip.

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17. (currently amended) A method for reducing a thickness of a compressible substrate bearing an image, the substrate having an initial thickness, including:

preparing a substrate comprising paper making fibers and a low density bulking material so as to produce a substrate having a first density; and

applying a compressive force to the substrate to compress the substrate to a thickness less than the initial thickness, thereby increasing the density of the substrate to a second density greater than the first density, the compressive force selected to preclude the substrate from returning to the initial thickness after removal of the compressive force~~; and~~

~~applying heat to the substrate while applying the compressive force~~.

18. (original) The method of claim 17, wherein the low density bulking material is compressible.

19. (original) The method of claim 17, wherein the low density bulking material includes a structure that is collapsible so as to increase its density.

20. (original) The method of claim 17, wherein the low density bulking material is a corrugated layer that forms part of the substrate matrix.

21. (new) A method for reducing a thickness of a compressible substrate bearing an image, the substrate having an initial thickness, comprising the steps of:

applying a compressive force to the substrate to compress the substrate to a thickness less than the initial thickness; and

removing the compressive force;

wherein the compressive force is selected to be of a magnitude sufficient so as to cause a permanent reduction in the thickness of the substrate and to preclude the substrate returning to the initial thickness after removal of the compressive force therefrom.

22. (new) The method of claim 17, further comprising the step of applying heat to the substrate in association with the compressive force.